



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/469,619 12/22/99 AIHARA

N 500.38034X00

020457 MMC1/0228  
ANTONELLI TERRY STOUT AND KRAUS  
SUITE 1800  
1300 NORTH SEVENTEENTH STREET  
ARLINGTON VA 22209

EXAMINER

LAXTON, G

ART UNIT

PAPER NUMBER

2838

DATE MAILED:

02/28/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

**Office Action Summary**

Applicati n No.

09/469,619

Applicant(s)

AIHARA ET AL.

Examiner

Gary L. Laxton

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 December 2000.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection necessitated by amendment. The Examiner thanks the applicant for clarifying the claim language. Furthermore, the Examiner submits a new reference illustrating that it is well known to control AC/DC converters, DC/ DC converters and DC converters to regulated levels of voltages.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yeh in combination with Gephart et al.

Figure 2 of Yeh discloses claims 1-3, 5 and 6. Claims 4-13 are disclosed in figures 1, 3-8 (Col. 1 lines 30-60; Col. 2 lines 50-65; Col. 3 lines 1-35; Col. 4 lines 40-65).

However, Yeh does not disclose an AC/DC controller.

Gephart et al illustrates that it has been known since at least 1986 that AC/DC do in fact have controllers to regulate the voltage level. Therefore, it would have been most obvious to one having ordinary skill in the art at the time the invention was made to utilize an AC/DC converter with a controller for controller the switching operation of the controller for regulating voltage levels.

Furthermore, power factor correcting is a highly desirable function for increasing circuit efficiency, therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate power factor correction in order to improve circuit efficiency.

4. Claims 15-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yeh in combination with Gephart et al and further in combination with Kageyama.

Figure 2 of Yeh discloses claims 1-3, 5 and 6. Claims 4-13 are disclosed in figures 1, 3-8 (Col. 1 lines 30-60; Col. 2 lines 50-65; Col. 3 lines 1-35; Col. 4 lines 40-65).

However, Yeh does not disclose an AC/DC controller.

Gephart et al illustrates that it has been known since at least 1986 that AC/DC do in fact have controllers to regulate the voltage level. Therefore, it would have been most obvious to one having ordinary skill in the art at the time the invention was

made to utilize an AC/DC converter with a controller for controller the switching operation of the controller for regulating voltage levels.

However, Yeh in combination with Gephart do not disclose parallel connecting a plurality of converters or modules.

Kageyama teaches just one example that it is well known in the art to parallel connect a plurality of converters including AC/DC converters or DC/DC converters in power backup systems to provide redundancy for single unit failures. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to parallel connect a plurality of converters in order to provide redundant power modules to provide constant power to a load in the case of a unit power failure, as taught by Kageyama.

Furthermore, power factor correcting is a highly desirable function for increasing circuit efficiency, therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate power factor correction in order to improve circuit efficiency.

***Conclusion***

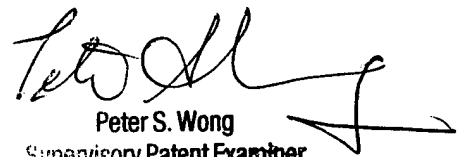
5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary L. Laxton whose telephone number is (703) 305-7039. The examiner can normally be reached on 5-4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter S. Wong can be reached on (703) 305-3477. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7723 for regular communications and (703) 305-7723 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

  
Peter S. Wong  
Supervisory Patent Examiner  
Technology Center 2800

GLL  
February 26, 2001